

**Notice of Allowability**

Application No.

09/935,727

Examiner

Eileen B. O'Hara

Applicant(s)

GENTZ ET AL.

Art Unit

1646

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10 August 2006.
2. ☒ The allowed claim(s) is/are 63-67,69-81,96-100,102-116 and 118-123.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- 1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Eileen B. O'Hara*  
EILEEN B. O'HARA  
PRIMARY EXAMINER

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### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michele Shannon on August 10, 2006.

The application has been amended as follows:

#### **Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application.

#### **Listing of Claims**

1-62. (Cancelled)

63. (Currently Amended) An isolated monoclonal antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

(a) a protein comprising the amino acid sequence of amino acid residues 31 to 300 of SEQ ID NO:2;

(b) a protein comprising the amino acid sequence of amino acid residues 31 to 283 of SEQ ID NO:2;

(c) a protein comprising the amino acid sequence of at least 30 contiguous amino acid residues of SEQ ID NO:2; and

(d) a protein comprising the amino acid sequence of at least 50 contiguous amino acid residues of SEQ ID NO:2;

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wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

64. (Previously Presented) The antibody or fragment thereof of claim 63 obtained from an animal immunized with protein (a).

65. (Previously Presented) The antibody or fragment thereof of claim 63 obtained from an animal immunized with protein (b).

66. (Previously Presented) The antibody or fragment thereof of claim 63 obtained from an animal immunized with protein (c).

67. (Previously Presented) The antibody or fragment thereof of claim 63 obtained from an animal immunized with protein (d).

68. (Cancelled)

69. (Currently Amended) The antibody or fragment thereof of claim 63 which is selected from the group consisting of:

- (a) a chimeric antibody;
- ~~(b)~~ a polyclonal antibody;
- ~~(e)~~(b) a single chain antibody; and
- ~~(d)~~(c) a Fab fragment.

70. (Previously Presented) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein consisting of amino acid residues 31 to 300 of SEQ ID NO:2.

71. (Previously Presented) The antibody or fragment thereof of claim 70 that binds a protein consisting of a fragment of a protein consisting of amino acids residues 31 to 300 of SEQ ID NO:2 wherein said fragment is at least 30 amino acids in length.

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72. (Previously Presented) The antibody or fragment thereof of claim 70 that binds an epitope within the N-terminal 142 amino acids of the protein of SEQ ID NO:4.

73. (Previously Presented) The antibody or fragment thereof of claim 70 wherein said protein bound by said antibody or fragment thereof is glycosylated.

74. (Previously Presented) The antibody or fragment thereof of claim 70 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a single chain antibody; and
- (c) a Fab fragment.

75. (Previously Presented) The antibody or fragment thereof of claim 70 which is labeled.

76. (Previously Presented) The antibody or fragment thereof of claim 75 which is labeled with a label selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label; and
- (d) a bioluminescent label.

77. (Previously Presented) The antibody or fragment thereof of claim 70 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

78. (Previously Presented) The antibody or fragment thereof of claim 70 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

79. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 70.

80. (Previously Presented) A hybridoma that produces the antibody or fragment thereof of claim 70.

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81. (Previously Presented) A method of detecting TNFR-6 in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 70; and
- (b) detecting the TNFR-6 in the biological sample.

82-95. (Cancelled)

96. (Currently Amended) An isolated monoclonal antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

- (a) a protein comprising the amino acid sequence of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97810;
- (b) a protein comprising the amino acid sequence of the extracellular soluble domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97810;
- (c) a protein comprising the amino acid sequence of at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97810; and
- (d) a protein comprising the amino acid sequence of at least 50 contiguous amino acid residues the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97810; wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

97. (Previously Presented) The antibody or fragment thereof of claim 96 obtained from an animal immunized with protein (a).

98. (Previously Presented) The antibody or fragment thereof of claim 96 obtained from an animal immunized with protein (b).

99. (Previously Presented) The antibody or fragment thereof of claim 96 obtained from an animal immunized with protein (c).

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100. (Previously Presented) The antibody or fragment thereof of claim 96 obtained from an animal immunized with protein (d).

101. (Cancelled)

102. (Currently Amended) The antibody or fragment thereof of claim 96 which is selected from the group consisting of:

- (a) a chimeric antibody;
- ~~(b) a polyclonal antibody;~~
- ~~(e)~~(b) a single chain antibody; and
- ~~(d)~~(c) a Fab fragment.

103. (Previously Presented) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97810.

104. (Previously Presented) The antibody or fragment thereof of claim 103 that binds a protein consisting of a fragment of a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97810, wherein said fragment is at least 30 amino acids in length.

105. (Previously Presented) The antibody or fragment thereof of claim 103 that binds an epitope within the N-terminal 142 amino acids of the protein encoded by the cDNA contained in ATCC Deposit Number 97809.

106. (Previously Presented) The antibody or fragment thereof of claim 103 wherein said protein bound by said antibody or fragment thereof is glycosylated.

107. (Previously Presented) The antibody or fragment thereof of claim 103 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a single chain antibody; and
- (c) a Fab fragment.

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108. (Previously Presented) The antibody or fragment thereof of claim 103 which is labeled.

109. (Previously Presented) The antibody or fragment thereof of claim 108 which is labeled with a label selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label; and
- (d) a bioluminescent label.

110. (Previously Presented) The antibody or fragment thereof of claim 103 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

111. (Previously Presented) The antibody or fragment thereof of claim 103 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

112. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 103.

113. (Previously Presented) A hybridoma that produces the antibody or fragment thereof of claim 103.

114. (Previously Presented) A method of detecting TNFR-6 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 103; and
- (b) detecting the TNFR-6 protein in the biological sample.

115. (Currently Amended) An isolated monoclonal antibody or fragment thereof that specifically binds a TNFR-6 protein purified from a cell culture wherein said TNFR-6 protein is encoded by a polynucleotide encoding amino acids 1 to 300 of SEQ ID NO:2 operably associated with a regulatory sequence that controls expression of said polynucleotide.

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116. (Previously Presented) The antibody or fragment thereof of claim 115 that binds an epitope within the N-terminal 142 amino acids of the protein of SEQ ID NO:4.

117. (Cancelled)

118. (Currently Amended) The antibody or fragment thereof of claim 115 which is selected from the group consisting of:

- (a) a chimeric antibody;
- ~~(b) a polyclonal antibody;~~
- ~~(e)~~(b) a single chain antibody; and
- ~~(d)~~(c) a Fab fragment.

119. (Previously Presented) The antibody or fragment thereof of claim 115 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

120. (Previously Presented) The antibody or fragment thereof of claim 115 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

121. (Previously Presented) An isolated cell that produces the antibody or fragment thereof of claim 115.

122. (Previously Presented) A hybridoma that produces the antibody or fragment thereof of claim 115.

123. (Previously Presented) A method of detecting TNFR-6 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 115; and
- (b) detecting the TNFR-6 protein in the biological sample.

124-147. (Cancelled)



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eileen B. O'Hara, whose telephone number is (571) 272-0878. The examiner can normally be reached on Monday through Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nichol can be reached at (571) 272-0835.

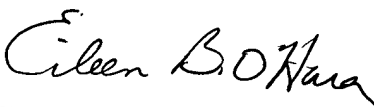
The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Eileen B. O'Hara, Ph.D.

Patent Examiner

  
**EILEEN B. O'HARA**  
**PRIMARY EXAMINER**